

WHAT IS CLAIMED, IS:

1. Method for bitrate control in a video or audio encoder containing an encoded-data buffer, wherein the encoded output video or audio data pass through said encoded-data buffer and an input buffer of a data recorder and are thereafter stored on a storage medium operated in said data recorder, the method including the steps:
 using a first control signal representing the current filling level of said encoded-data buffer to control the video or audio encoder output bitrate by corresponding adaptation of at least one encoding parameter used in said video or audio encoder;
 controlling additionally said encoding parameter and/or further encoding parameters influencing said video or audio encoder output bitrate by a second control signal representing the current filling level of said input buffer and/or by a third control signal representing a currently available storage capacity on said storage medium.
2. Method according to claim 1, wherein said video or audio encoder is an MPEG encoder, in particular MPEG-2 video.
3. Method according to claim 1, wherein said data recorder is a DVD recorder.
4. Method according to claim 1, wherein said video or audio encoder has in its encoding loop a quantiser and said encoding parameter is a setting or parameter for said quantiser and, if present, an inverse quantiser.
5. Method according to claim 1, wherein the data stream input to said video or audio encoder includes data - e.g. EPG data - concerning the temporal length or data concerning the amount of data for a program to be recorded,

from which, based on the initial or currently remaining program length and a desired average data rate, and based on the initial or currently remaining storage capacity for this program on said storage medium, the at least one encoding parameter is calculated accordingly using said second control signal and/or said third control signal.

6. Apparatus for bitrate control, including:

a video or audio encoder to which an encoded-data buffer is assigned;

a data recorder including an input buffer, wherein output video or audio data of said encoded-data buffer pass through said input buffer and are thereafter stored on a storage medium operated in said data recorder,

wherein a first control signal representing the current filling level of said encoded-data buffer is used to control the video or audio encoder output bitrate by corresponding adaptation of at least one encoding parameter used in said video or audio encoder, and

wherein said encoding parameter and/or further encoding parameters influencing said video or audio encoder output bitrate are additionally controlled by a second control signal representing the current filling level of said input buffer and/or by a third control signal representing a currently available storage capacity on said storage medium.

7. Apparatus according to claim 6, wherein said video or audio encoder is an MPEG encoder, in particular MPEG-2.

8. Apparatus according to claim 6, wherein said data recorder is a DVD recorder.

9. Apparatus according to claim 6, wherein said video or audio encoder has in its encoding loop a quantiser and

10. Apparatus according to claim 6, wherein the data stream
5 input to said video or audio encoder includes data -
e.g. EPG data - concerning the temporal length or data
concerning the amount of data for a program to be re-
recorded, from which, based on the initial or currently
remaining program length and a desired average data
10 rate, and based on the initial or currently remaining
storage capacity for this program on said storage me-
dium, the at least one encoding parameter is calculated
accordingly using said second control signal and/or said
third control signal.

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